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October 22, 1998

**BY HAND DELIVERY**

Ms. Magalie R. Salas  
Secretary  
Federal Communications Commission  
Room 222  
1919 M Street, N.W.  
Washington, D.C. 20554

RECEIVED  
OCT 22 1998  
FEDERAL COMMUNICATIONS COMMISSION  
OFFICE OF THE SECRETARY

**Re: Notice of Ex Parte Communication Regarding the  
Petition for Forbearance of the Cellular  
Telecommunications Industry Association (filed Dec. 16,  
1997), in Telephone Number Portability, CC Docket No.  
95-116**

Dear Ms. Salas:

Yesterday, on behalf of the Telecommunications Resellers Association ("TRA"), the undersigned of Hogan and Hartson L.L.P., David Gusky, Vice President and Director of Wireless Services, TRA, and Steve Trotman, Director of Local Resale Services, TRA, Terry Deshler of Snively, King, Majoros, O'Connor & Lee, and Earl Comstock of Sher & Blackwell, met with David Furth and Clint Odum of the Wireless Telecommunications Bureau and Gayle Radley Teicher and Patrick Forster of the Common Carrier Bureau regarding the referenced proceeding.

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HOGAN & HARTSON L.L.P.

Ms. Magalie R. Salas

October 22, 1998

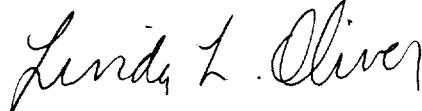
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The purpose of the meeting was to discuss TRA's opposition to the December 16, 1997 request of the Cellular Telecommunications Industry Association ("CTIA") for forbearance from the wireless number portability requirement, and to describe an alternative for implementing number portability under the current time frame. The points discussed in the meeting are set forth in the attached handout, which was distributed at the meeting. TRA also made the points set forth in its August 10, 1998, comments and its August 31, 1998, reply comments on the NANC report, filed in this docket. TRA also discussed the points made in its February 23, 1998, comments in opposition to CTIA's forbearance petition.

I have hereby submitted two copies of this notice to the Secretary, as required by the Commission's rules. Please return a date-stamped copy of the enclosed (copy provided).

Please contact the undersigned if you have any questions.

Respectfully submitted,

A handwritten signature in cursive script that reads "Linda L. Oliver".

Linda L. Oliver  
Counsel for Telecommunications  
Resellers Association

Enclosure

cc: David Furth  
Clint Odum  
Gayle Radley Teicher  
Patrick Forster

# *Wireless Number Portability Recommendation*



Telecommunications Resellers Association  
1730 K Street, NW, Suite 1201  
Washington, DC 20006

# Topics

- Competition and Wireless NP
- Non-Call Associated Signaling
- SS7 Network
- Roamer Registration Examined
- Nation-wide Wireless NP
- Implementation Comparison
- TRA Approach Meets Timetable
- Recommendations

## Competitive Environment

The primary goal of Congress in enacting the Telecommunications Act of 1996 was the development of competitive telecommunications markets and the reduction of regulatory constraints.

Local number portability (NP) was singled-out for special treatment when Congress specifically mandated that it be an obligation of all local exchange carriers.

The Commission correctly expanded this mandate by applying NP obligations on Commercial Mobile Radio Service (CMRS) providers as well.

## Competition and CMRS

As CMRS services offerings broaden, prices fall and subscribership begins to approach wireline levels, the absence of wireless NP will increasingly hobble competition - not only in wireless markets but in wireline markets as well.

Limited competition in wireless telecommunications markets will necessitate the Commission's continued regulatory oversight of incumbent carriers.

While such oversight is necessary to protect consumers, it skews market signals, reduces investment incentives, stifles innovation and encourages higher prices.


## Non-Call Associated

For every telephone call - mobile or land-line - two distinct types of routing takes place in modern telecommunications networks.

- Call Routing - the process of defining and establishing a voice path over which a conversation can take place.
- Non-Call Associated Signaling - the process of identifying a caller's specific service parameters and determining the network functions necessary to provide the relevant services.

Wireless NP issue relates to non-call associated signaling.






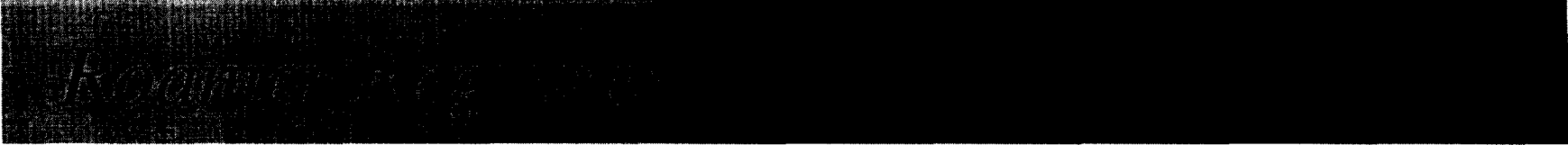
Non-call associated signaling is performed over a parallel packet-based data network known as the SS7 network.

By using the SS7 network to transmit signaling information, carriers are able to free up valuable voice-grade trunks and increase their available capacity.

The NP solution that was deployed in the wireline markets - and ultimately the solution that will be deployed in the wireless markets - is based on modifications to the SS7 network processes.






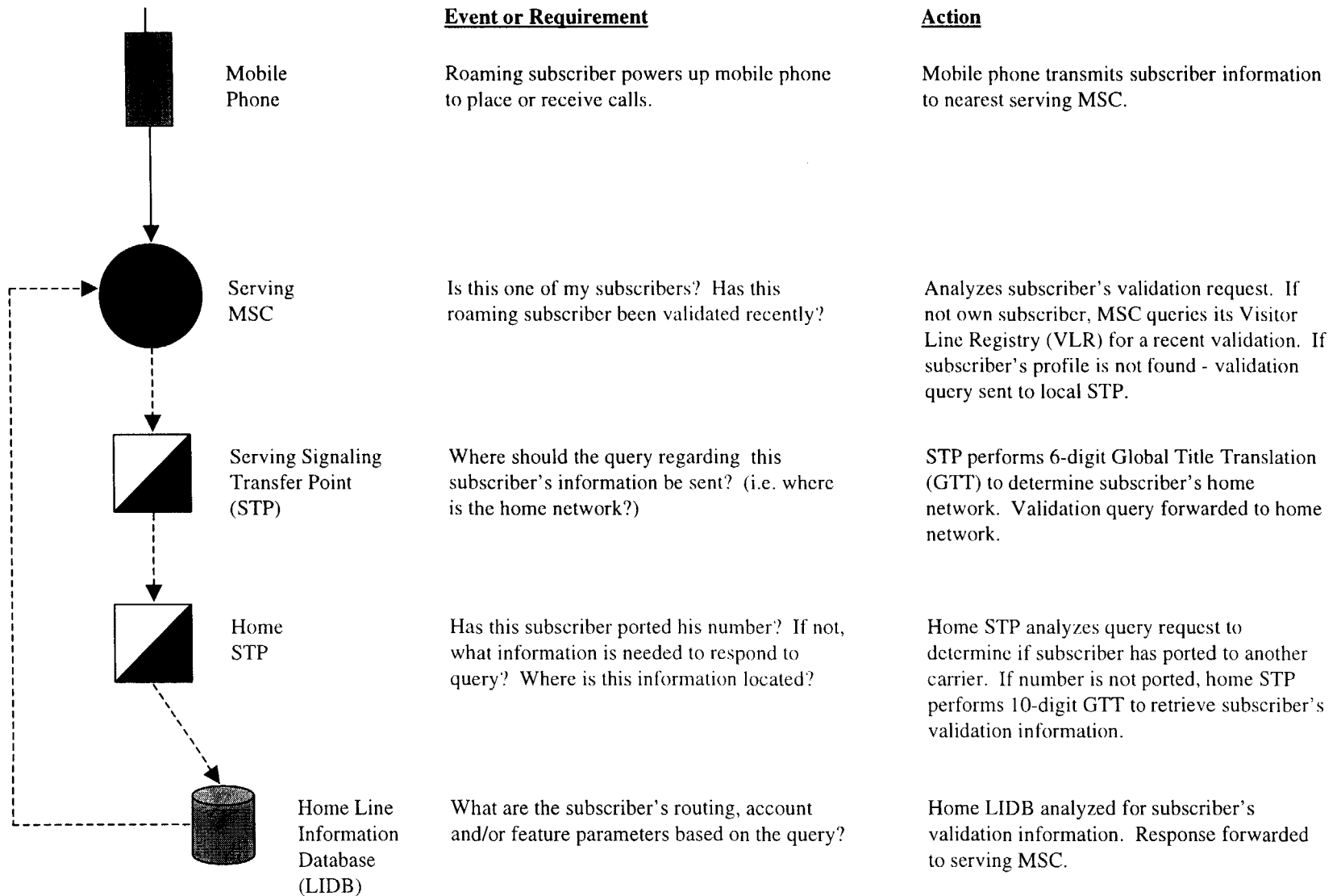


Roamer registration and subscriber validation messages make up a significant portion of SS7 network traffic.

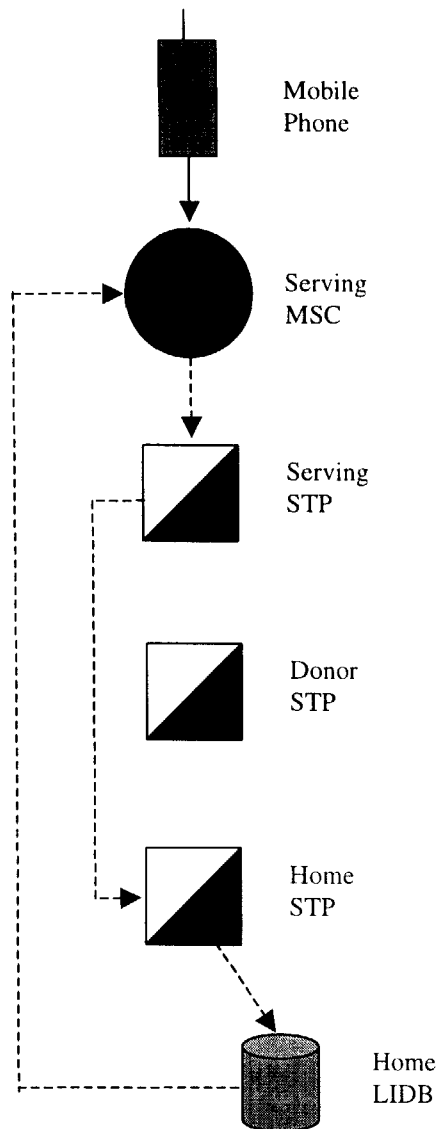
Roamer registration under current conditions for non-ported numbers, the Cellular Telecommunications Industry Association (CTIA) approach for ported numbers, and the Telecommunications Resellers Association (TRA) approach for ported numbers are illustrated in the following diagrams.



# Current Roamer Registration



# CTIA Roamer Registration - Ported Number



## Event or Requirement

Roaming subscriber powers up mobile phone to place or receive calls.

Is this one of my subscribers? Has this roaming subscriber been validated recently?

Where is this subscriber's home network?

N/A

What information is needed to respond to query? Where is this information located?

What are the subscriber's routing, account and/or feature parameters based on the query?

## Action

Mobile phone transmits subscriber information to nearest serving MSC.

Analyzes subscriber's validation request. If not own subscriber, MSC queries its VLR for a recent validation. If subscriber's profile is not found - validation query sent to local STP.

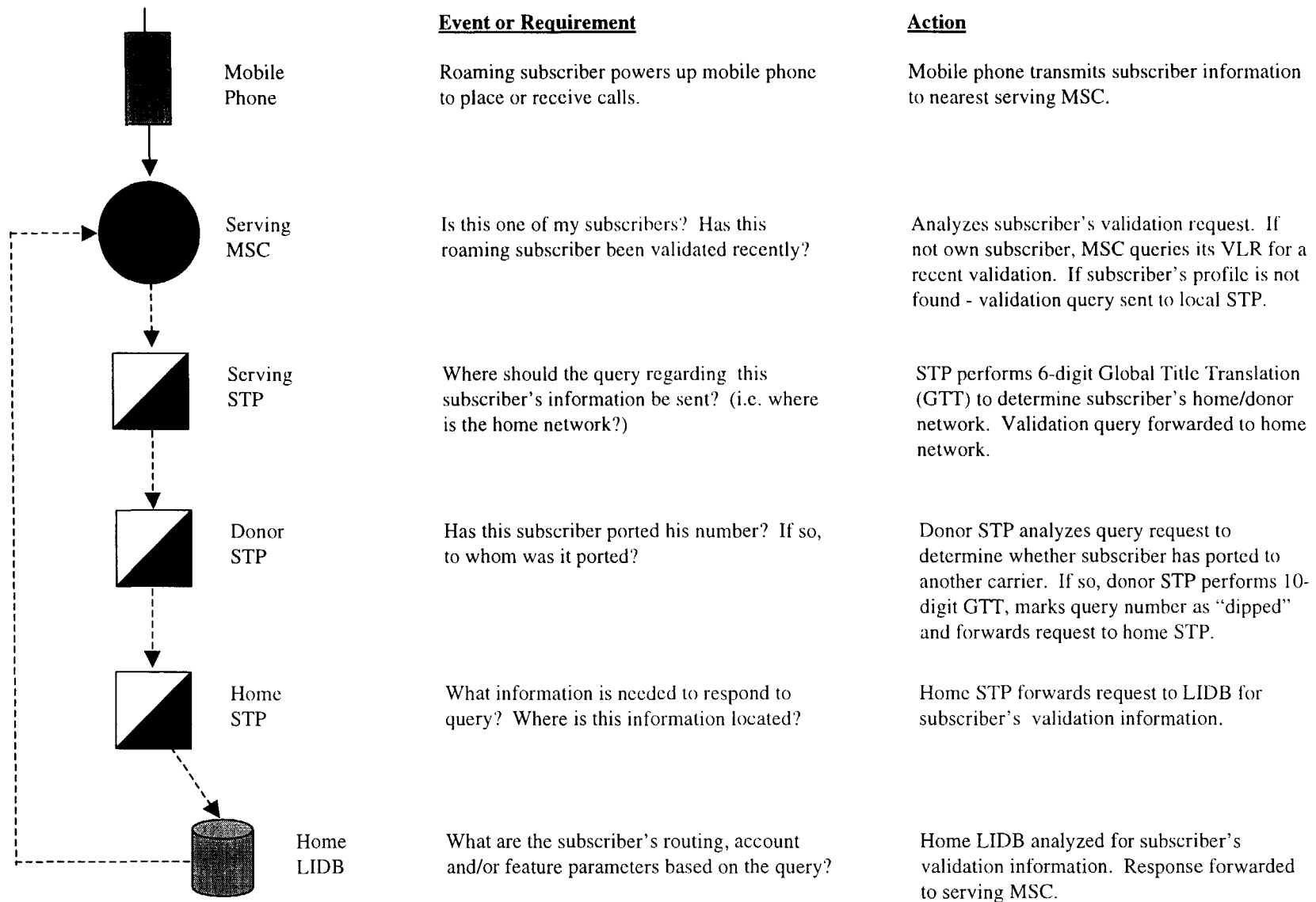
STP performs 10-digit Global Title Translation (GTT) based on different MIN/MDN numbers to determine subscriber's home network. Marks subscriber's number as "dipped." Validation query forwarded to home network.

N/A

Home STP forwards request to LIDB for subscriber's validation information.

Home LIDB analyzed for subscriber's validation information. Response forwarded to serving MSC.

# TRA Roamer Registration - Ported Number







As the examples illustrate, the CTIA approach would require the Commission to order nation-wide wireless NP.


The CTIA approach vests the serving Mobile Service Center (MSC) with the responsibility for performing NP database dips. Donor carriers have no responsibility for ported numbers.

Because serving MSCs outside the top 100 Metropolitan Statistical Areas (MSAs) have no incentive to implement Mobile Identification Number /Mobile Directory Number (MIN/MDN) separation for someone else's subscribers, the Commission would have to order them to do this.





Regardless of implementation solution - wireless NP will require:

- Number Portability Administration Center (NPAC) Connectivity - hardware/software interconnections.
  - NPAC User fees - participating carriers subscribe to NPAC.
  - Telephone number inventory systems - modifications to maintenance/use of numbering resources.
  - Provisioning systems - integration of existing systems.
  - Wireless Intelligent Network - query software development.
  - NP database - either the carrier will develop own system/database or will outsource.
- 



## **Additional Tasks to Implement CTIA's Approach**

Develop MIN/MDN separation capability.

- Standards Development
- Hardware/Software Development
- Vendor/Industry Arrangements

Modify all business processes to recognize MIN/MDN separation.

- Point of sale, billing, service ordering, customer service

Deploy MIN/MDN capability in all switches/cell sites.

Flash-cut all systems to new capability.





## **Additional Tasks to Implement TRA Approach**


Establish interconnection agreements with relevant carriers.

- Define signaling responsibilities
- Develop service procedures regarding network interoperability and reliability

Develop mechanisms for inputting NP information into NPAC and for retrieval of such information.







Deployment of wireline NP solution in the top 100 MSAs took approximately two years to complete after formally ordered by the Commission.

Because the TRA approach utilizes processes already developed for the wireline industry, wireless NP deployment will take less time.

Implementation of the TRA approach can reasonably be expected to be completed before the March 31, 2000 deadline ordered by the Commission.

